Application No.: 09/752,573
Amendment dated: September 19, 2005
Reply to Office Action dated: July 18, 2005

REMARKS/ARGUMENTS

Claims 1-23 are pending in the application. Claims 1-23 are rejected. Claims 1, 11, and

22 have been amended for purposes of clarity.

Claims 1-4, 8-10, 11-16, and 20-22 were rejected under 35 U.S.C. §102(e) as being

anticipated by Keller, U.S. Patent No. 6,636,959 (hereinafter "Keller"). Claims 5-7, 17-19, and

23 were rejected under 35 U.S.C. §103(a) as being unpatentable over Keller in view of "Register

Renaming and Dynamic Speculation: an Alternative Approach," by Mayan Moudgill and Keshav

Pingali (hereinafter "Moudgill").

Claim Rejections Under 35 U.S.C. §102(e)

Claims 1-4, 8-10, 11-16, and 20-22 were rejected under 35 U.S.C. §102(e) as being

anticipated by Keller. Keller discloses a line predictor to cache alignment information for

instructions (*See* Abstract).

As previously stated, Keller fails to teach or suggest determining a set of rename

resources needed for the trace cache line on a *per-packet basis*, as recited in claims 1, 11 and 22.

The Office Action responds:

The previous examiner already pointed out Keller Taught "determining a set of rename
resources needed for said trace cache line on a per-packet basis. Column 23, lines 22-37
with figure 0 shows that a line (or packet) is terminated when a maximum number of
destination registers (a rename source) is reached". Col. 23, lines 22-27 state: "Finally,
the line is terminated if the instructions within the line update a predefined maximum
number of destination registers. *This termination condition is set such that the maximum
number of register renames that map unit 30 may assign during a clock cycle is not
exceeded.* In the present embodiment, 4 renames may be the maximum." As noted by
applicants on p. 5, lines 11-12 of their specification, "The use of rename units is known
to those or ordinary skill in the art." *Applicants seem to be arguing Keller's patented
invention is not enabled.* Having said that rename units are known to those of ordinary
skill in the art, it borders on the preposterous that applicants would then argue one of
ordinary skill could not determine what set of rename resources would be assigned to the

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instructions of a line by that well-known rename unit and *make certain the set of rename resources did not exceed the rename unit's capacity* as taught by Keller. The measure of a teaching is always what one of ordinary skill would understand from that teaching and not what yokel off the street would understand.

(Keller, Column 23, lines 22-27)(Emphasis added).

Applicants are not arguing that Keller's patented invention is not enabled. Applicants are arguing that a feature of the invention is not disclosed. Keller discloses that a termination condition is set such that the maximum number of register renames that the map unit may assign during a clock cycle is not exceeded. This disclosure would indicate that Keller assumes a "worst case scenario" in which the maximum utilization of destination registers is assumed, although as Keller does not delve into this aspect of the invention it is impossible to say what method is used when determining when the maximum number of destination registers is exceeded. What is possible to say is that Keller clearly does not disclose determining the actual set of rename resources needed on a per-packet basis.

Thus, an element of claims 1, 11, and 22 are not disclosed by Keller. Therefore, claims 1, 11, and 22 and by their dependency claims 2-4, 8-10, 12-16, and 20-21, are not anticipated by Keller.

Claim Rejections Under 35 U.S.C. §103(a)

Claims 5-7, 17-19, and 23 were rejected under 35 U.S.C. §103(a) as being unpatentable over Keller in view of Moudgill. Moudgill discloses a mechanism implementing register renaming, dynamic speculation, and precise interrupts (*See* Abstract).

Neither Keller, Moudgill, nor any combination of the two teach or suggest determining a set of rename resources needed for the trace cache line on a per-packet basis and comparing the

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set of rename resources needed for the provisional trace cache line to a rename capacity, as

claimed in claims 1, 11, and 22, and by their dependency claims 5-7, 17-19, and 23.

Therefore, claims 5-7, 17-19, and 23, are not obvious under Keller in view of Moudgill.

For all the above reasons, the Applicant respectfully submits that this application is in

condition for allowance. A Notice of Allowance is earnestly solicited.

The Examiner is invited to contact the undersigned at (408) 975-7500 to discuss any

matter concerning this application.

The Office is hereby authorized to charge any additional fees or credit any overpayments

under 37 C.F.R. §1.16 or §1.17 to Deposit Account No. 11-0600.

Respectfully submitted,

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